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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Munekki Ando

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08/12/2002

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EXAMINER

ABDULSELAM, ABBAS L

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 08/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/484,432

Applicant(s)

ANDO ET AL.

Examiner

Abbas I Abdulsalam

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2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### **Response to Arguments**

1. Applicant's arguments filed on May 06/2002 have been fully considered but they are not persuasive.

Applicant argues that Gyouten et al. (USPN 6195077) does not teach a correction circuit for correcting the modulation signals to be outputted to the lines during a selected time period, which conducts the correction in order that a modulation signal is adjusted. Applicant also argues that Gyouten does not teach that based on a width of the voltage pulse which has been or will be supplied to a line adjacent to a particular line, the pulse width of the voltage supplied to the particular line is corrected. However, as shown in the art rejection below, Gyouten teaches a correction clock forming circuit (200) configured with pulse width modulator (203) and correction clock width modulator (204). Gyouten also teaches a clock correction circuit (70) which outputs correction clock signal. Gyouten further teaches that as the pulse width decreases, the period of correction voltage in the segment output voltage,  $V_s$  becomes shorter. See Fig 6, Fig 14. See column 13, lines 62-67 and column 14, lines 1-4, and column 20, lines 59-66.

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### **Claim Rejections U.S.C. 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Gyouten et al. (USPN 6195077).

Regarding claims 1, 8, 15, and 49-52, Gyouten teaches a liquid crystal panel (101) with segment drive circuit (102), and side drive circuit (103) which is used for selecting sequentially to drive scanning lines. Gyouten teaches displaying images in a simple matrix type which displays an image with a pixel located at each intersections of the electrodes (X1, Y1), (X2, Y2), (X3, Y3).....(Xm, Yn). See column 11, lines 47-58 and Fig 1. Gyouten teaches an output control means for adjusting an amount of correction for the output voltage of the segment side circuit according to the distance between an arrangement position of the segment drive circuit and a position of scanning line selected by the side drive circuit in the liquid crystal panel. See column 1, lines 11-14, column 4, lines 42-47, and Fig 39. Moreover, Gyouten teaches correction clock generator circuit (70) in conjunction with the correction base clock for indicating the position where a correction period is to be provided, and the length of correction period is adjusted by the

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correction clock generator circuit. In addition, Gyouten teaches counter (72) changes in the outputs (B1, B2, B3) to high level ; and further teaches the display data stored in the line latch (123) of the drive circuit (102) that would be given to the liquid crystal drive output circuit (126). See column 1, lines 55-63 and Fig 41. Gyouten also teaches maintaining uniformity of luminance as well as the voltage waveforms with the correction voltage changes. See column 17, lines 30-33 , lines 49-65 and Fig 20. Therefore an identical image display system is shown as taught by Gyouten.

Regarding claims 2-3 and 9-10, 54-56, Gyouten teaches the pulse width modulator (203), and correction clock with modulator (204) which is supplied with reference correction clock signals. See Fig 29.

Regarding claims 4, 6, 11 and 13, Gyouten teaches the correspondence of counters (71, 72) along with the rise and fall of correction clock signals. See column 16, lines 58-61.

Regarding claims 5, 7, 12, and 14, Gyouten teaches changing of the length of correction period. See column 16, lines 5-11 and Fig 14.

Regarding claims 16, Gyouten teaches the segment output voltage  $V_s$ . which is selected according to a combination of the AC-converting signal, the line latch output, and the correction clock. See column 20, lines 26-35 and Fig 28.

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Regarding claims 17-18, 21-22, 28-29, 35-36, and 42-43, Gyouten teaches liquid crystal panel (1), and drive circuit (2) which drives the plurality of segment electrodes both in a row and column. See column 11, lines 47-57 and Fig 1.

Regarding claims 19, 23, 30, 37 and 44, Gyouten teaches a method for driving the LCD device with a common drive circuit for selecting sequentially to drive scanning lines.

Regarding claims 20, 24-27, 31-34, 38-41 and 45-48, Gyouten teaches the liquid crystal panel (101) with common electrodes, segment electrodes and liquid crystal layer interposed between electrodes. Column 2, lines 9-12. In addition, it is well known in the art and would be obvious to utilize a display panel composed of electron emission devices with a phosphor layer.

Regarding claim 57, Gyouten teaches level shifter (24) in terms of AC-converting signal for driving a liquid crystal panel and LCD output circuit (27). See column 12, lines 43-52.

Regarding claims 53 and 58-59, Gyouten teaches amount of correction with respect to uniformly luminance waveforms. See column 17, lines 21-23 and Fig 18.

Regarding claim 60, Gyouten teaches improving display quality in liquid crystal device apparatus. See column 1, lines 7-10.

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**Conclusion**

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

**Any response to this action should be mailed to:**


Commissioner of patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand delivered responses should be brought to crustal park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

  
RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Abbas Abdulsalam

Examiner

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